

Claims

1. A method of binding leaves or other organic debris utilizing an adhesive composition comprising a water soluble or dispersible polymer, the method including the step of coating upwardly facing leaves and/or other organic debris with an adhesive composition to bond
5 them together into larger sections, the invention wherein the adhesive composition includes an anti-slip additive.
2. The method of claim 1 wherein the anti-slip additive is a water insoluble particulate material having a size and density which allows the particles to be readily dispersed in the
10 adhesive but which have a size which is large enough to reduce surface slipperiness of the adhesive layer when wet.
3. The method of claim 2 wherein the average size range for the anti-slip particles is from about 100 microns to about 3000 microns.
- 15 4. The method of claim 1 wherein the anti-slip agent is coarse sand, a coarsely ground agricultural grains, coarse urea prills, coarse sawdust, ground corncobs, crushed limestone, or a mixture of any thereof.
- 20 5. The method of claim 1 wherein the water soluble or dispersible binder polymer and the anti-slip additive are present in a relative dry weight ratio of may range from about 20:80 to about 80:20 binder polymer to anti-slip agent.

6. The method of claim 1 wherein the water soluble or dispersible binder polymer is a polysaccharide or a derivative thereof, a cellulose or a derivative thereof, or a mixture thereof.

5 7. The method of claim 1 wherein the water soluble or dispersible binder polymer is a member of the group consisting of pregellatinized starches, starch derivatives, guar, gum arabic, xanthan gum, plantago, hydroxy methyl cellulose, hydroxyethylated cellulose, hydroxypropylated cellulose, sodium carboxymethylcellulose, alginic acid, lignin derivatives, polyvinyl alcohol, polyvinyl pyrrolidone, polyacrylic acid and mixtures
10 thereof.

8. An adhesive composition suitable for use as a binder for an organic debris pile, the composition comprising a starch or other polysaccharide and an anti-slip agent in a relative dry weight basis ratio of from 80:20 to 20:80 polysaccharide to anti-slip agent.

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9. An adhesive composition as in claim 8 wherein the anti-slip additive is a water insoluble particulate material having a size and density which allows the particles to be readily dispersed in the adhesive but which have a size which is large enough to reduce surface slipperiness of the adhesive layer when wet.

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10. An adhesive composition as in claim 9 wherein the average size range for the anti-slip particles is from about 100 microns to about 3000 microns.

11. An adhesive composition as in claim 8 wherein the anti-slip agent is coarse sand, a coarsely ground agricultural grains, coarse urea prills, coarse sawdust, ground corncobs, crushed limestone, or a mixture of any thereof.
- 5 12. An adhesive composition as in claim 8 wherein the water soluble or dispersible binder polymer is a pregellatinized starch, a starch derivative or a mixture of any thereof.
- 13 An adhesive composition as in claim 12 wherein the water soluble or dispersible binder polymer is a pregellatinized corn or potato starch, a hydroxypropylated starch, a
10 carboxymethylated starch or a mixture of any thereof.
14. An adhesive composition for binding leaves or other organic debris comprising a water soluble or dispersible polymer, wherein the adhesive composition further includes an anti-slip additive.
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15. An adhesive composition as in claim 14 wherein the anti-slip additive is a water insoluble particulate material having a size and density which allows the particles to be readily dispersed in the adhesive but which have a size which is large enough to reduce surface slipperiness of the adhesive layer when wet.
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16. An adhesive composition as in claim 15 wherein the average size range for the anti-slip particles is from about 100 microns to about 3000 microns.

17. An adhesive composition as in claim 14 wherein the water soluble or dispersible binder polymer and the anti-slip additive are present in a relative dry weight ratio of may range from about 20:80 to about 80:20 binder polymer to anti-slip agent.
- 5 18. An adhesive composition as in claim 14 wherein the water soluble or dispersible binder polymer is a polysaccharide or a derivative thereof, a cellulose or a derivative thereof, or a mixture thereof.
- 10 19. An adhesive composition as in claim 14 wherein the water soluble or dispersible binder polymer is a member of the group consisting of pregellatinized starches, starch derivatives, guar, gum arabic, xanthan gum, plantago, hydroxy methyl cellulose, hydroxyethylated cellulose, hydroxypropylated cellulose, sodium carboxymethylcellulose, alginic acid, lignin derivatives, polyvinyl alcohol, polyvinyl pyrrolidone, polyacrylic acid and mixtures thereof.
- 15 20. An adhesive composition as in claim 19 wherein the anti-slip agent is coarse sand, a coarsely ground agricultural grains, coarse urea prills, coarse sawdust, ground corncobs, crushed limestone, or a mixture of any thereof.